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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/22/2003

Gregory Berrevoets

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EXAMINER

PRIDDY, MICHAEL B

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

10/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/692,460	Applicant(s) BERREVOETS ET AL.	
	Examiner Michael B. Priddy	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 10-15, 24-26, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 4-6, 8, 9, 16-20, 27 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1-9 are objected to because of the following informalities: in line 6 of claim 1, "a contact surface of" should be --a contact surface on--; in line 16 of claim 1, "the actuator member" should be --the actuator--; in lines 2 and 4 of claim 7, "member" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the other spinal rod connecting device" in line 12. here is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Richelsoph et al. (US 2002/0111625). Richelsoph et al. teach a connecting assembly for interconnecting spinal rods secured to spinal vertebrae, the connecting assembly comprising: a pair of spinal rod connecting devices A & B; a contact surface C on each of the connecting devices for seating on one of the spinal rods 14; a locking member 44 for being shifted between the clamped and unclamped positions; and a rotatable actuator 18 operable to shift the locking member 44 between clamped and unclamped positions, the actuator 18 being rotatable by a predetermined rotary amount to a locked position thereof corresponding to the clamped position of the locking member 44 on the spinal rod 14; wherein the contact surface C for seating on the spinal rod is an arcuate surface and the locking member 44 has an arcuate surface 12 such that the arcuate surface is secured against the spinal rod when in the clamped position; wherein the rotatable actuator is located in a bore in the spinal rod connecting device, and the bore includes a pair of arcuate camming surfaces (threads) for camming against the rotatable actuator 18. Note the Examiner has used the

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definition of cam:

noun

a rotating disk shaped to convert circular into linear motion

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to interpret camming surfaces as surfaces which convert a circular motion into a linear motion. The threads in the bore of Richelsoph et al. convert rotary motion of actuator 18 into linear motion of the same actuator 18.

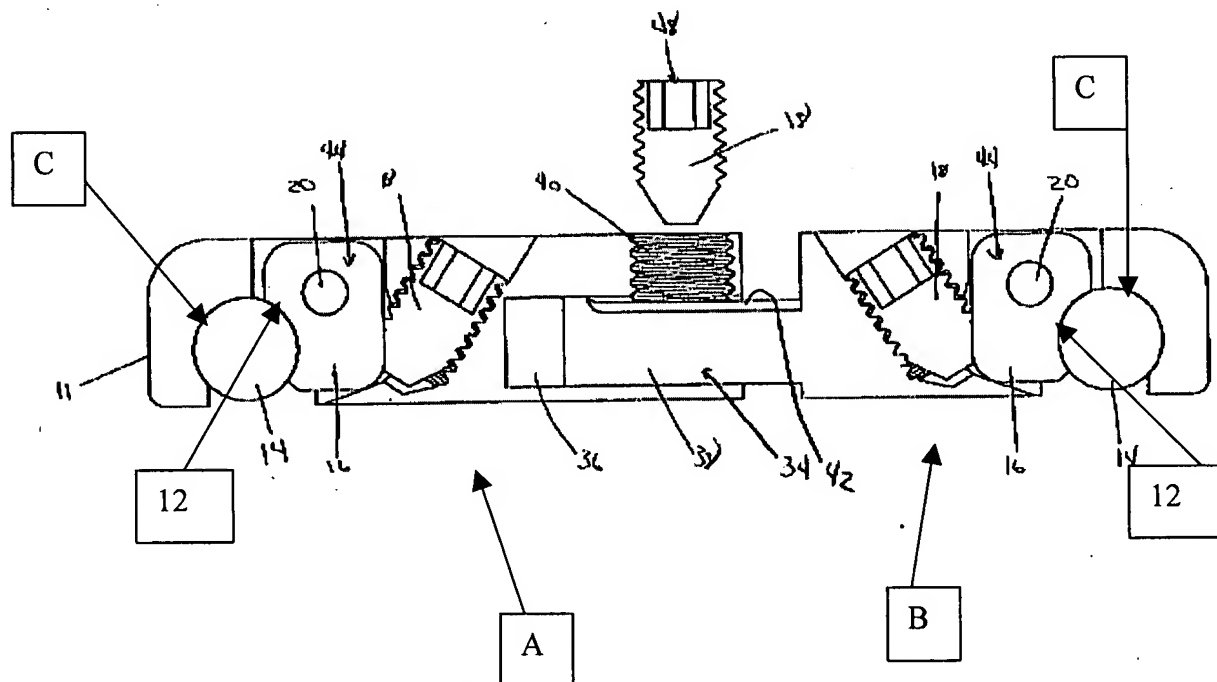


Fig. 2

Claims 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Shulzas (US 2002/0143330 A1). Shulzas teaches a connecting assembly for interconnecting spinal rods secured to spinal vertebrae, the connecting assembly comprising: a pair of spinal rod connecting devices 30 & 44 for being connected to a respective pair of spinal rods; a cross rod 42 having opposite ends and a central longitudinal rod axis extending therebetween and being connected to one of the spinal rod connecting devices 44 at one of the rod ends; a rod receiving member having a

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central longitudinal receiver axis and being connected integral with the other spinal rod connected device 30, the rod receiving member including an internal bore 40 oriented along the receiver axis and being configured for adjustably receiving the other end of the cross rod 42 so that the rod 42 may be pivoted with respect to the receiver axis to provide the rod 42 with variable angles relative thereto and so that the cross rod 42 may be shifted axially along the rod axis to variable depths within the bore 40 of the rod receiving member; a clamp device 58 for clamping against the cross rod 42 to fix the cross rod 42 at an adjusted angle and an adjusted depth within the receiving member; wherein the internal bore 40 of the rod receiving member receives the cross rod 42 such that the cross rod 42 may be adjustably rotated in the rod receiving member around a longitudinal axis of the cross rod 42; wherein the clamp device may pivot (rotate) to permit pivoting of the cross rod 42; wherein the clamp device 58 includes an inner surface for mating with the external surface of the cross rod; wherein with at least a portion of the inner surface of the clamp device is arcuate for mating with the external surface of the cross rod, and the cross rod 42 may be rotatably adjusted relative to the clamp device; wherein the cross rod 42 includes a protrusion 48 for rotating the cross rod 42 within the rod receiving member 40.

Claims 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 2003/0050640 A1). Lee et al. teach a connecting assembly for interconnecting a pair of spinal rods secured to spinal vertebrae, the connecting member comprising: a pair of spinal rod connecting devices 110 & 120 each having an arcuate surface and a

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locking member 112/122 for clamping the connecting assembly to the pair of spinal rods; and a cross rod 116 being connecting to one of the connecting devices; a rod receiving member being connected to the other connecting device 120, the rod receiving member including an internal bore for receiving the cross rod 116; a clamp device 130 for clamping against the cross rod 116 when received in the rod receiving member; a sleeve (threaded bore which receives member 130) for clamping the clamp device against the cross rod 116; and side openings in the receiving member that open to the bore to allow the cross rod 116 to be pivoted in and out of the bore through the side openings, wherein the cross rod 116 has lateral surfaces which may be pivoted relative to the rod receiving member into and out of the side openings; wherein the cross rod 116 has a central longitudinal axis, and the rod receiving member has a central longitudinal axis; wherein the cross rod 116 may be pivoted to a position such that the cross rod is protruding from one of the side openings.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richelsoph et al. as applied to claim 1 above and further in view of the following.

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Richelsoph et al. teach all of the limitations of claim the present invention except the actuator member being rotatable by about 80 to about 110 degrees to the locked position thereof corresponding to the clamped position of the locking member.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the actuator member of Richelsoph et al. such that it was rotatable by about 80 to about 110 degrees to the locked position thereof corresponding to the clamped position of the locking member, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Allowable Subject Matter

Claims 4-6, 8, 9, 27 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP.

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Priddy whose telephone number is 571-272-2243. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael B. Priddy

Michael B. Priddy
September 27, 2007


EDUARDO O. ROBERT
SUPERVISORY PATENT EXAMINER